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# **Section 3:**

Machine  
Programming  
Instructions

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# OPL Washer Cycle Parameter Ranges

The range of each cycle parameter is shown below:

<b>Bath Cycle Time "ct"</b>
0 to 15 minutes for Prewash, Rinse1 and Rinse 3 to 15 minutes for Wash and Final Rinse. For the baths that can, if the time is set to zero, then that bath will be eliminated from the cycle.
<b>Bath Water Temperature "t"</b>
HH – hot, CH – warm, CC – cold, EE – no water. The owner can set the bath default. For the wash bath, the default is over ridden for that cycle by the customer when the temperature is selected.
<b>Bath Water Level "L"</b>
Water Level, Lo for low, HI for high.
<b>Bath Delay Fill "dF"</b>
The selections are "d" for delay the bath time until water level is reached or "t" for decrement bath time during the fill.
<b>Bath Spin Time "S"</b>
0 to 10 minutes for Prewash, Wash, Rinse1 and Rinse2, 1 to 10 minutes for Final Spin.
<b>Bath "IS"</b>
The owner can change the displayed value, 0 thru 6. Codes for injections sources are defined at the end of the programming section. When the No Water bath is selected, the electronic controller prohibits injection signals. The programmed injection source value is ignored.

## Washer 6 Default Cycles (Preset at Factory)

**There are 6 pre programmed baths on the control which are set up at the factory. The formulas for each are shown on the following pages. Each of these 6 programs can be adjusted and saved as the owner needs.**

**Cycle 1: Sheets and Pillowcases (Health Care)**

Bath	Bath Cycle Time (min.)	Water Temp.	Water Level	Delay Fill	Spin Time (min.)	Injection Source
Flush	3	CH	HI	d		
Prewash	2	CH	HI	d		
Wash	7	HH	LO	d	1	#1(Detergent)
Rinse 1	7	HH	LO	d	2	#2 (Bleach)
Rinse 2	2	CH	HI	d	1	
Rinse 3	2	CH	HI	d		
Rinse 4						
Final Rinse	4	CH	LO	d	4	#4 (Sour/Soft)

**Cycle 2: Towels / Pads / Diapers (Health Care)**

Bath	Bath Cycle Time (min.)	Water Temp.	Water Level	Delay Fill	Spin Time (min.)	Injection Source
Flush	3	CH	HI	d		
Prewash	2	CH	HI	d		
Wash	7	HH	LO	d	1	#1 (Detergent)
Rinse 1	1	HH	HI	d		
Rinse 2	7	HH	LO	d	2	#2 (Bleach)
Rinse 3	2	CH	HI	d	1	
Rinse 4	2	CH	HI	d		
Final Rinse	4	CH	LO	d	5	#4 (Sour/Soft)

Bath	Bath Cycle Time (min.)	Water Temp.	Water Level	Delay Fill	Spin Time (min.)	Injection Source
Flush						
Prewash						
Wash	7	HH	LO	d	1	#1(Detergent)
Rinse 1	1	HH	HI	d		
Rinse 2	7	HH	LO	d	2	#2 (Bleach)
Rinse 3	2	CH	HI	d	1	
Rinse 4	2	CH	HI	d		
Final Rinse	4	CH	LO	d	5	#4 (Sour/Soft)

Cycle 4: Guest Laundry (Hotel / Motel / Healthcare)						
Bath	Bath Cycle Time (min)	Water Temp.	Water Level	Delay Fill	Spin Time (min)	Injection Source
Flush	3	CH	HI	d		
Prewash						
Wash	7	HH	LO	d	5	#6(Detergent/Bleach)
Rinse 1	2	HH	HI	d		
Rinse 2	2	CH	HI	d		
Rinse 3	2	CH	HI	d		
Rinse 4						
Final Rinse	4	CH	LO	d	4	#4 (Sour/Soft)

Cycle 5: Rags and Mops (Hotel / Motel)						
Bath	Bath Cycle Time (min)	Water Temp.	Water Level	Delay Fill	Spin Time (min)	Injection Source
Flush	3	CH	HI	d		
Prewash	2	CH	HI	d		
Wash	2	CH	HI	d		
Rinse 1	7	HH	LO	d	1	#1 (Detergent)
Rinse 2	2	HH	HI	d		
Rinse 3	7	HH	LO	d	2	#2 (Bleach)
Rinse 4	2	CH	HI	d	1	
Final Rinse	2	CH	LO	d	5	

Cycle 6: Colored Cotton Linen (Hotel & Food Service)						
Bath	Bath Cycle Time (min)	Water Temp.	Water Level	Delay Fill	Spin Time (min)	Injection Source
Flush	3	CH	HI	d		
Prewash	2	CH	HI	d		
Wash	2	CH	HI	d		
Rinse 1	7	HH	LO	d	1	#1(Detergent)
Rinse 2	2	HH	HI	d		
Rinse 3	7	HH	LO	d	2	#2 (Bleach)
Rinse 4	2	CH	HI	d	1	
Final Rinse	2	CH	LO	d	5	

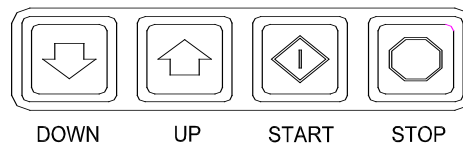
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# Washer Programming Instructions

## THERE ARE TWO WAYS TO MODIFY PROGRAMMING OF THE V-SERIES OPL SIX (6) PREPROGRAMMED FORMULAS

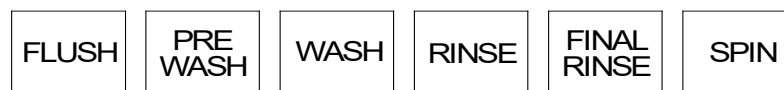
**Option 1:** Programming can be accomplished manually using the machine controls or by connecting to the machine control using a PDA (personal digital assistant). For instructions on using a PDA with this washer control and software, please contact your local Dexter distributor. Please read below for manual programming instructions.

The keypad layout for the washer control is shown below.



### Option 2: Wash Cycle Manually Programming

1. Turn on the power to the washer.
2. Turn the Run/Program key to the Program position. Display will show "CO" and the "ADD BLEACH" will blink and will continue to blink during the programming mode.
3. Press the "DOWN" or "UP" buttons to select which cycle to alter. When the desired cycle number is displayed, press "START".
4. The display should now show a "b". The "b" and the cycle indicator lights indicate which bath is being selected to alter. Press the "UP" and "DOWN" buttons to select a bath to change and then press "START".



The indicator lights are shown above:

When "RINSE" is selected, "b r1" through "b r4" may be selected.

**There may be multiple rinses that are indicated by br 1, br 2, br 3, and br 4**

5. Each bath can be programmed with the following options. Use the "DOWN" and "UP" keys to select the desired setting and the "START" key to move to the next option.

To exit the programming of a bath, press the "STOP" button once and use the "UP" and "DOWN" keys select another bath. Press the "STOP" button again to select a different cycle to change. To end programming, turn the key to "RUN" position.

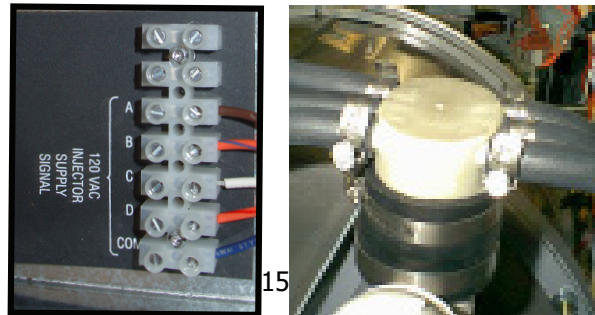
## Rapid Advance Mode

To enter the Rapid Advance mode, turn the key CCW. The Rapid Advance setting is not marked next to the key, but turning the CCW until it stops selects this mode. The Rapid Advance mode can be entered from either the Idle mode or during the cycle. If the cycle has not yet started, press the "START" button. To rapid advance to the next step in the wash cycle, push both the "UP" and "START" buttons at the same time. The display will show an "Ad" (advance) in the display. The washer will advance to the next bath segment. The water will drain before the advance will occur and the time displayed may not be accurate.

- Notes:**
- The indicator lights will show to which segment the cycle has been advanced.
  - The cycle will continue in rapid advance mode even if the key is turned to "RUN" and/or removed.
  - Rapid advance cannot skip the final 1- minute tumble of the cycle, and the door lock may remain activated for up to 3 minutes after the cycle has been completed.
  - Chemical 120 volt signals will be lost after Rapid advance Mode has been activated until cycle resets. To exit the Rapid Advance mode, push and hold the STOP button.

## Injection Source Details

The washer control may be programmed to send output signals for a chemical injection system. There is a separate terminal block for connection of the external injection signals. For the injection sources, program codes 0 through 6 are as shown in the table below. Injection signal will trigger a 120 volt reading at rear terminal block for approximately 5-10 seconds and will start to trigger at about 10-seconds after start of fill bath.

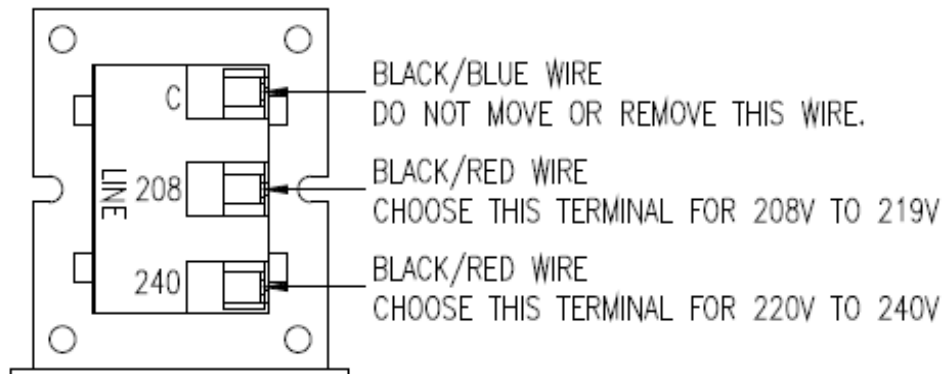


Dexter Recommended Connections Circuits	Controller Programmed Signals	Injection Terminal Block
Detergent	1	A
Bleach	2	B
Starch	3	C
Sour/Softener	4	D
	5	A and B
	6	C and D
	0	None

**NOTE: The Wash Cycle programming mode will automatically exit and return to the Idle mode if no buttons are pushed for one minute.**

### 2.11.3 CONTROLS TRANSFORMER (208-240V 60 Hz models only)

The controls transformer is located inside the control trough and steps a range of 208 to 240 volts down to 115 volts. There are two terminals on the controls transformer for the primary (incoming) power. Use the terminal marked "208V" for power supplies between 208 and 219 volts. Use the terminal marked "240V" for power supplies between 220 and 240 volts. Refer to the following for control transformer connections.

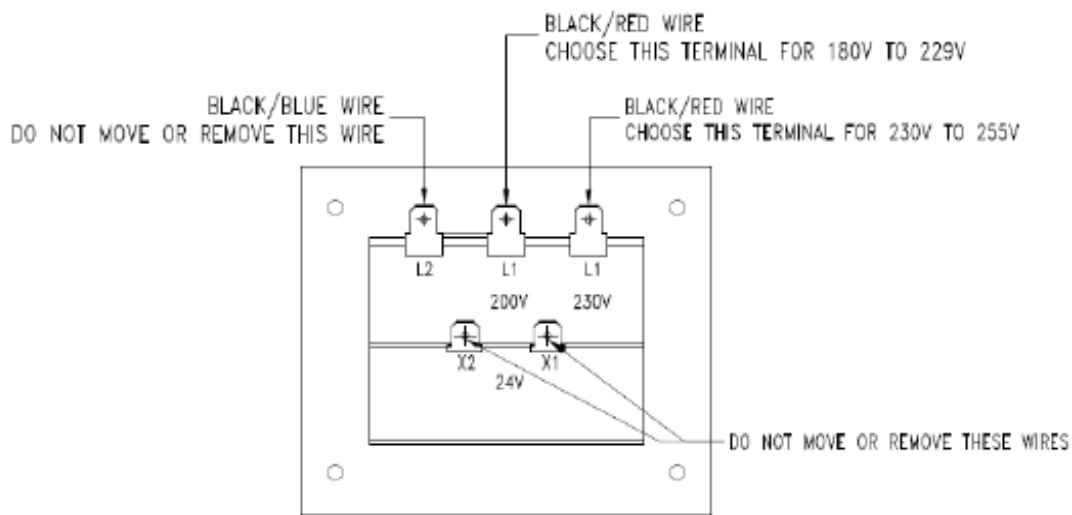


#### 60 Hz Control Transformer Connections

### 2.11.4 CONTROLS TRANSFORMER (230V 50 Hz models only)

The controls transformer is located inside the control trough and steps a range of 180 to 255 volts down to 24 volts. There are two terminals on the controls transformer for the primary (incoming) power. Use the terminal marked "L1 200V" for power supplies between 180 and 229 volts. Use the terminal marked "L1 230V" for power supplies between 230 and 255 volts.

#### CONTROL TRANSFORMER CONNECTIONS

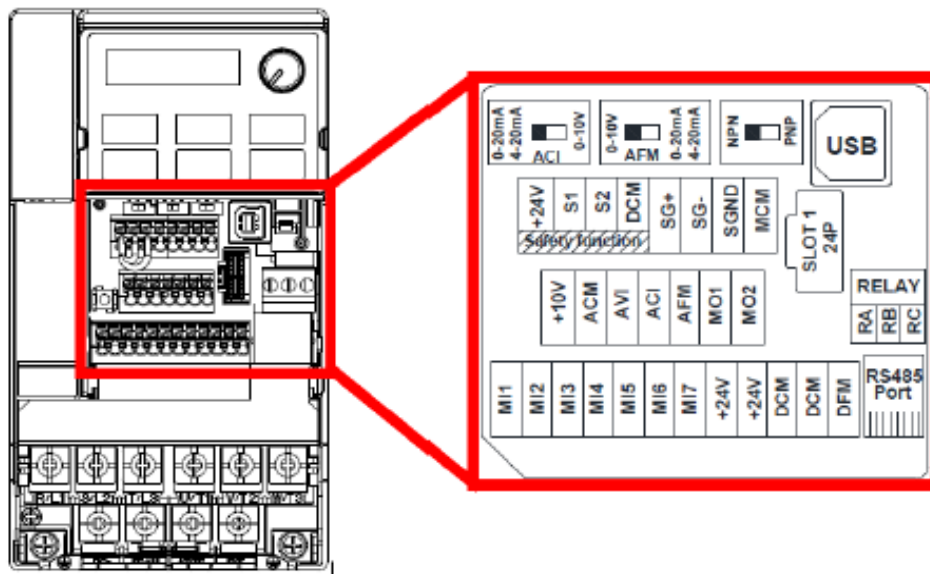


#### 50 Hz Control Transformer Connections

### 2.11.5 MAXIMUM SPIN SPEED ADJUSTMENT (All washers except T-950)

If desired, the washer can be adjusted to limit the maximum extract spin speed for all wash cycles.

To make this adjustment, a jumper wire must either be installed or removed on the Variable Frequency Drive (VFD), depending on the washer model and desired speed. This Dexter jumper part number 8220-057-036 (qty 1) is factory supplied on terminal points "10V" and "RC". Remove this jumper to make new jumper connections if necessary. Refer to figure below for the approximate location of the control terminations on the Variable Frequency Drive (VFD) and for appropriate jumper connection points indicated with an "X" for the desired maximum spin speed setting. If no adjustment to the default spin speed is desired, do not remove or add any wires on VFD.



**Control Terminations on Variable Frequency Drive**

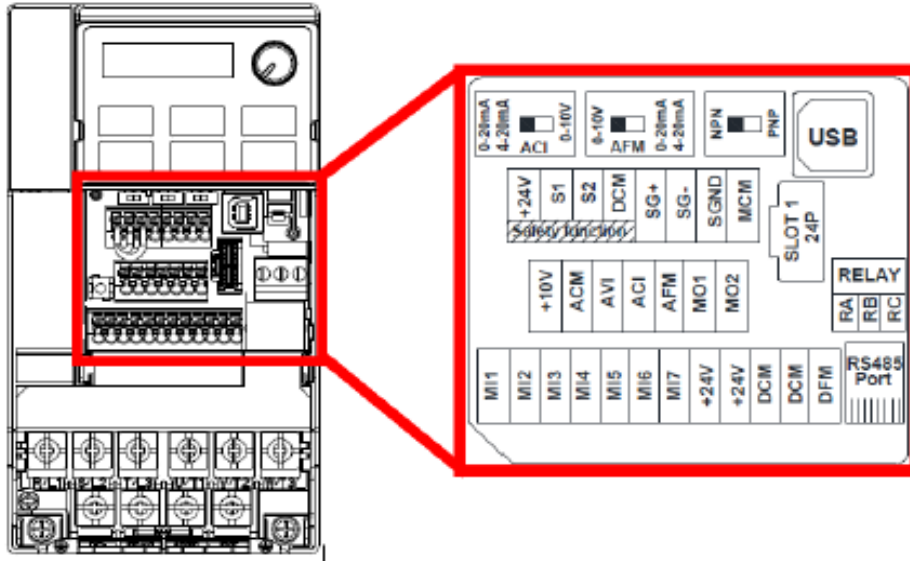
V Series Washer Model	Max Spin Speed	Jumper Terminal Locations on Variable Frequency Drive (VFD)													
		MI1	MI2	MI3	MI4	MI5	MI6	DCM (Left)	DCM (Right)	24V	ACM	AVI	ACI	10V	MO1
T-300, T-400,	60 G												X		X
T-600, T-900,	80 G				X			X							
T-1200	100 G	Default Setting (No Jumper Required)													
T-350, T-450,	60 G												X		X
	100 G				X			X							
	140 G					X		X							
T-650, T-1450	200 G	Default Setting (No Jumper Required)													
	100 G												X		X
	140 G	REMOVE Brown Jumper Between MI5/MO1													
	200 G	Default Setting (No Jumper Required)													

**Spin Speed Adjustment Jumper Locations**

**MAXIMUM SPIN SPEED ADJUSTMENT (T-950 Only)**

The variable frequency drive allows for varying acceleration during Final Spin on T-950 models. It is important to utilize a decreased acceleration rate when the application power is low. This acceleration rate is determined by a white wire jumper installed on the drive terminal block from +10V to AVI.

Remove the wire jumper when input power is between 208 and 219 volts. Keep the jumper installed when input power is between 220 and 240 volts. Reference the drawing below for the jumper location.



**Control Terminations on Variable Frequency Drive**

V Series Washer Model	Input Voltage	Max Spin Speed	Jumper Terminal Locations on Variable Frequency Drive (VFD)												
			MI1	MI2	MI3	MI4	MI5	MI6	DCM (Left)	DCM (Right)	24V	ACM	AVI	ACI	10V
T-950	240V	140 G	REMOVE Brown Jumper Between MI5/MO1												
		200G											X		X
	208V	140 G	REMOVE Brown Jumper Between MI5/MO1												
		200G	No Jumper required												

**T-950 Spin Speed Adjustment Jumper Locations**